



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW1519G BYPASS RATIO: 11.6
 UNIQUE ID NUMBER: 04P20PW199 PRESSURE RATIO (π_{co}): 32.3
 COMBUSTOR: TALON X, Block-C
 ENGINE TYPE: TF RATED THRUST (F_{oo}) (kN): 88.0

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.4	33.5	35.0	2.2
AS % OF ORIGINAL LIMIT	2.0	28.0	33.0	9.0
AS % OF CAEP/2 LIMIT (NO _x)			42.0	
AS % OF CAEP/4 LIMIT (NO _x)			49.0	
AS % OF CAEP/6 LIMIT (NO _x)			55.0	
AS % OF CAEP/8 LIMIT (NO _x)			64.0	

For non-volatile particulate matter (nvPM) emissions, please refer to the ICAO Engine nvPM Emissions Data Sheet.

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (% F_{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	0.620	0.00	0.00	19.60	1.7
CLIMB OUT	85	2.2	0.520	0.00	0.00	16.60	1.2
APPROACH	30	4.0	0.190	0.10	3.30	9.80	0.8
IDLE	7	26.0	0.070	0.20	21.40	5.30	0.4
LTO TOTAL FUEL (kg) or EMISSIONS (g)			246	23	2399	2656	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				0.3	27.3	30.2	1.7
SIGMA (D_p/F_{oo} in g/kN, or SN)							
RANGE (D_p/F_{oo} in g/kN, or SN)				0.2-0.4	27-27.8	30-30.4	1.4-1.9

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	102-103.3
TEMPERATURE (K)	272-278.1
ABS HUMIDITY (kg/kg)	0.00122-0.00221

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	17.8-18.4

MANUFACTURER: Pratt & Whitney
 TEST ORGANIZATION: Pratt & Whitney
 TEST LOCATION: Mirabel Aerospace Centre - Quebec
 TEST DATES: 25/03/2018-26/03/2018

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

REMARKS

- Data from Certification Report PWA-11600
- Block C combustor
- Certification in accordance with Part III, Chapter 2, of Amendment 8 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 e) (CAEP/8)

Compliance with Fuel Venting requirements:

x ('x' if complies, 'PR' if pre-regulation, '- ' if information is not available)